

Title (en)
DILUTE LIQUID PHASE ALKYLATION

Title (de)
VERDÜNNTE FLÜSSIGPHASENALKYLIERUNG

Title (fr)
ALKYLATION A PHASE LIQUIDE DILUEE

Publication
EP 1968919 A4 20090121 (EN)

Application
EP 07716344 A 20070105

Priority

- US 2007000239 W 20070105
- US 75677806 P 20060107

Abstract (en)
[origin: WO2007081781A2] Methods of forming ethylbenzene are described herein. In one embodiment, the method includes contacting dilute ethylene with benzene in the presence of an alkylation catalyst to form ethylbenzene, wherein such contact occurs in a liquid phase reaction zone and recovering ethylbenzene from the reaction zone.

IPC 8 full level
C07C 2/64 (2006.01)

CPC (source: EP KR US)
C07C 2/64 (2013.01 - KR); **C07C 2/66** (2013.01 - EP KR US); **C07C 15/073** (2013.01 - KR); **C07C 2523/10** (2013.01 - EP US); **C07C 2529/08** (2013.01 - EP US); **C07C 2529/70** (2013.01 - EP US)

Citation (search report)

- [X] US 6002057 A 19991214 - HENDRIKSEN DAN ELDON [US], et al
- [X] WO 9611175 A1 19960418 - EXXON CHEMICAL PATENTS INC [US]
- [X] US 2001018545 A1 20010830 - ZHANG JIRUI [CN], et al
- [X] US 3205277 A 19650907 - POLLITZER ERNEST L, et al
- [X] US 2004059167 A1 20040325 - CLARK MICHAEL C [US], et al
- [A] US 3200164 A 19650810 - GERALD CURTIS F
- See references of WO 2007081781A2

Citation (examination)

- US 5856607 A 19990105 - KIM DAE K [US]
- US 2004138511 A1 20040715 - BUTLER JAMES [US], et al

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2007081781 A2 20070719; WO 2007081781 A3 20071108; BR PI0706421 A2 20110329; EP 1968919 A2 20080917; EP 1968919 A4 20090121; KR 20080081279 A 20080909; US 2007161838 A1 20070712; US 2011130609 A1 20110602; US 2013184508 A1 20130718; US 8426661 B2 20130423; US 8748683 B2 20140610

DOCDB simple family (application)
US 2007000239 W 20070105; BR PI0706421 A 20070105; EP 07716344 A 20070105; KR 20087014614 A 20080617; US 201113024602 A 20110210; US 201313785851 A 20130305; US 65028207 A 20070105